5

10

15

- 1. An antenna configuration (3) which has a first antenna arm (4) and a second antenna arm (5), wherein each of the two antenna arms (4, 5) is made of electrically conductive material and has a first end (6, 7) and a second end (8, 9) and has a longitudinal direction (10, 11) which runs from the first end (6, 7) to the second end (8, 9), and wherein the two first ends (6, 7) are arranged at a first distance (d) from one another and adjacent to one another and are in each case intended and designed for electrically conductive connection to a terminal (12, 13) of a signal sink (2) or of a signal source (2), and wherein the two second ends (8, 9) are arranged at a second distance (D) from one another and remote from one another, said second distance (D) being greater than the first distance, and wherein the two longitudinal directions (10, 11) of the two antenna arms (4, 5) enclose an acute opening angle ( $\alpha$ ) with one another, and wherein the acute opening angle ( $\alpha$ ) has a value of between 15° and 90°.
- 2. An antenna configuration (3) as claimed in claim 1, wherein the acute opening angle (α) has a value of between 25° and 45°.
  - 3. An antenna configuration (3) as claimed in claim 2, wherein the acute opening angle ( $\alpha$ ) has a value of 30°  $\pm$  10 %.
- An antenna configuration (3) as claimed in claim 1, wherein the two antenna arms (4, 5) are designed to run in a straight line.
  - 5. An antenna configuration (3) as claimed in claim 1, wherein the two antenna arms (4, 5) are designed to run in a meandering manner.

30

An antenna configuration (3) as claimed in claim 1, wherein at least one coupling web (14, 15, 16, 17) is provided in order to electromagnetically couple the two antenna arms (4, 5), which coupling web (14, 15, 16, 17) is made of electrically conductive material and extends at least over a region lying between the two antenna arms (4, 5) and is

electrically isolated from the two antenna arms (4, 5).

5

10

15

20

30

- An antenna configuration (3) as claimed in claim 6, wherein the at least one coupling web (14, 15, 16, 17) is arranged to run transversely to the angle half-line (18) of the acute opening angle ( $\alpha$ ) between the longitudinal directions (10, 11) of the two antenna arms (4, 5).
- 8. An antenna configuration (3) as claimed in claim 7, wherein the at least one coupling web (14, 15, 16, 17) is arranged to run perpendicular to the angle half-line (18) of the acute opening angle ( $\alpha$ ) between the longitudinal directions (10, 11) of the two antenna arms (4, 5).
- 9. An antenna configuration (3) as claimed in claim 6, wherein a number of coupling webs (14, 15, 16, 17) are provided, which coupling webs (14, 15, 16, 17) have increasing lengths as the distance from the first ends (6, 7) of the two antenna arms (4, 5) increases.
  - 10. An antenna configuration (3) as claimed in claim 6, wherein the at least one coupling web (14, 15, 16, 17) is designed to run in a straight line.
- 11. An antenna configuration (3) as claimed in claim 6, wherein the at least one coupling web (14, 15, 16, 17) has the form of a narrow strip.
- 12. An antenna configuration as claimed in claim 6, wherein the at least one coupling web has the form of a wide plate.
  - An antenna configuration (3) as claimed in claim 6, wherein the at least one coupling web (14, 15, 16, 17) extends over the region lying between the two antenna arms (4, 5) and beyond the two antenna arms (4, 5).
  - 14. An antenna configuration (3) as claimed in claim 1, wherein the two antenna arms (4, 5), with respect to a substrate (20) for the two antenna arms (4, 5), are provided on opposite side surfaces of the substrate (20).

15. An antenna configuration (3) as claimed in claim 6, wherein the two antenna arms (4, 5), with respect to a substrate (20) for the two antenna arms (4, 5), are provided together on a first side surface of the substrate (20), and wherein the at least one coupling

web (14, 15, 16, 17) is provided on the opposite, second side surface of the substrate (20).

25

PCT/IB2005/050764

5

**WO** 2005/088770

An antenna configuration (3) as claimed in claim 1, wherein the antenna configuration (3) is intended and designed for use in a contactless data carrier (1) for contactless communication with a communication station, which data carrier contains an IC (2) and the antenna configuration (3).

10

17. A data carrier (1) for contactless communication with a communication station, characterized in that the data carrier (1) is provided with an antenna configuration (3) as claimed in any of claims 1 to 10.